

Drying, filtering and cleaning cores

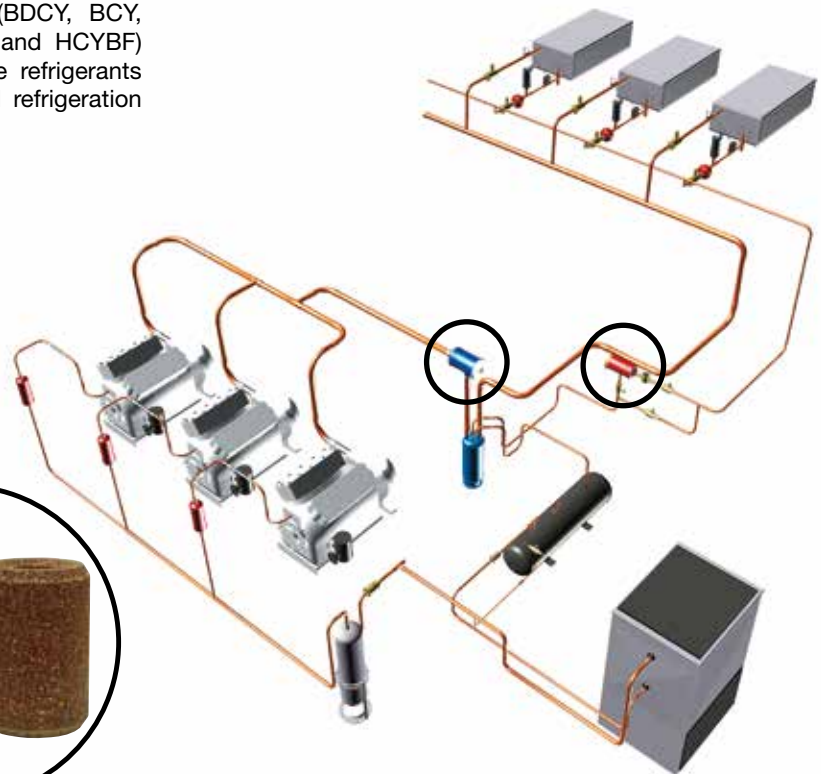
CTCY-EN - 7.1-8 / 05-2022

→ CCY / PLATINIUM

■ Applications

- Interchangeable elements for the filter shells (BDCY, BCY, BCY-HP, BCY-P6, BCY-P14, BBCY, ACY, BACY and HCYBF) ensuring the filtration, drying, or cleaning of the refrigerants and refrigerating oils of the air conditioning and refrigeration installations.

Shell reference	Core reference (size)
BDCY	CCY 42
BCY / BCY-HP / ACY	CCY 48 / PLATINIUM 48
BCY-P6 / BCY-P14	PLATINIUM 48 / CCY 48
BBCY / BACY	CCY 100 / PLATINIUM 100



■ Functional features

- Products are compatible with HCFCs, HFCs, HFOs, CO₂, as well as with their associated oils and additives. Products are designed for use of refrigerants from group 2 and group 1 of PED 2014/68/EU. To use CARLY components for a RANKINE organic cycle application, contact CARLY technical department.
- The cartridges CCY HP, N, PLATINIUM:
 - can be used with all the filter shells that can be found on the market.
 - are supplied with a complete set of flange gaskets corresponding to most of the filter shells that can be found on the market. Important : This gaskets set do not contain the one for BCY-P14 flanges which is specific.
 - are designed and manufactured to trap with a low pressure drop the humidity and impurities conveyed by the refrigerant and resist against vibrations and the circuit's pressure cyclings.
- The cleaning and drying cores CCY HP and N have a high acid adsorption power.
- The filtering cartridge CCY 48 HU can be used for all types of refrigerating oils with or without additives.

■ CARLY advantages

- The cores CCY HP, PLATINIUM 48 and N are oven-dried in order to be perfectly dehydrated before being packed in an easy-to-open sealed box. These cores have high humidity adsorption capacities at high and low condensation temperatures.
- The CCY I and F cores are efficient whichever the refrigerant flow direction.
- Efficient solutions for refrigerating circuit decontamination thanks to a complete range of cores.
- Presence of a date sticker to be filled in after the maintenance operations (core change).



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■ Warning

Before selecting or installing any component, please refer to the chapter 0 - **WARNING**.

■ General assembly precautions

The installation of a component in a refrigeration system by a skilled professional, requires some precautions:

- Some are specific to each component, and in this case, they are specified in the

RECOMMENDATIONS SPECIFIC part defined hereafter ;

- Other are general to all CARLY components, they are presented in the chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

- The recommendations relating to the CARLY components for the subcritical CO₂ applications are also developed in chapter 115 – **GENERAL ASSEMBLY PRECAUTIONS**.

■ Specific recommendations for drying, filtering and cleaning cores CCY HP, N, F, I, HU and PLATINIUM

- Refer to assembly precautions for replaceable core filter drier shells and recommendations for liquid line: BDCY, BCY, BCY-HP, BCY-P6, BCY-P14, BBCY, for suction replaceable core filter shells: BDCY, ACY, BACY, and for HCYBF replaceable core oil filter shells.
- Remove cores from their sealed can at the very last moment before putting them in the shells.
- The cartridges CCY 48 HP, 48 N and PLATINIUM must be positioned in various cartridge holders with their funnel shape at the larger end (see chapter “ technical features of cores “ , Ø 4 on drawing N°2) on the box outlet union side.
- It is imperative to use CCY A adapters with chemical cores (CCY N, CCY HP and PLATINIUM) in the suction filter

shells. Do not forget to remove them before installing CCY F and CCY I cores.

- Important : The CCY cores must be changed very regularly and particularly the CCY HP and PLATINIUM cartridges must be absolutely replaced :
 - after each intervention on the installation requiring the opening of the circuit
 - when the liquid indicator (VCYL or VCYLS) indicates an abnormal humidity content
 - when the pressure loss measured in the filter drier shell is too great
 - at least once a year as a measure of precaution.
- It is important to regularly monitor the refrigerant's moisture content and condition using sight glasses with CARLY

VCYL or VCYLS moisture indicator (refer to chapter 9 or 10).

- For use of various CCY core types in the pollution control and circuit cleaning process after compressor burnout, closely follow the recommendations given to chapter 7.
- Be careful, some additive oils are not compatible with the activated alumina present in the CCY 42/48/100HP and N. It is your responsibility to verify this compatibility.



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CTCY-EN - 7.1-8 / 05-2022

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■ Functional features

CARLY References	To be used with							Use			Filtration microns	Composition	Features	
	BDCY	BCY BCY-HP	BCY-P6 BCY-P14	BBCY	ACY	BACY	HCBYF	On suction line	On liquid line	On oil line				
Felt cores														
CCY 42 F	X							Temporary a few days				10	Felt	For HCFC, HFC, HFO, CO ₂ Reinforced filtration
CCY 48 F			X											
CCY 100 F						X								
Stainless steel cores														
CCY 42 I	X							Permanent				140	Stainless steel mesh cloth and screen	For HCFC, HFC, HFO, CO ₂ Filtering
CCY 48 I			X		X									
CCY 100 I						X								
High efficiency drying cores														
CCY 42 HP	X							Temporary a few days	Permanent until saturation			50	Chemical agents	For HCFC, HFC, HFO, CO ₂ Reinforced drying acid neutralization
CCY 48 HP		X	X		X									
CCY 100 HP				X		X								
Very high efficiency drying cores														
PLATINIUM 48		X	X		X			Temporary a few days	Permanent until saturation			50	Chemical agents	For HCFC, HFC, HFO, CO ₂ Optimum drying
PLATINIUM 100				X		X								
Cleaning cores														
CCY 42 N	X							Temporary a few days	Temporary a few days			50	Chemical agents	For HCFC, HFC, HFO, CO ₂ Burnout decontamination, reinforced drying, reinforced acid neutralization, wax and resin binding
CCY 48 N		X	X		X									
CCY 100 N				X		X								
Oil cores														
CCY 48 HU							X			Permanent until saturation		30	Filtrating cellulose, glued, pleated	For refrigerating oil filtering



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→ CCY HP / PLATINIUM / CCY N

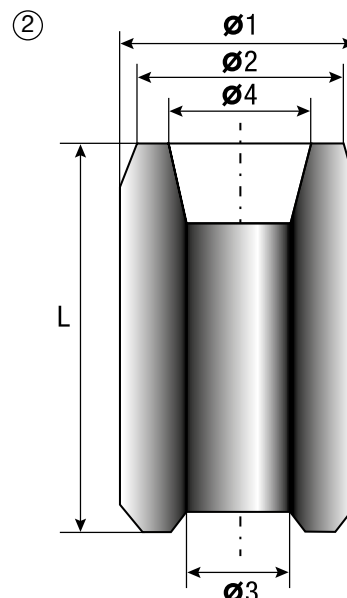
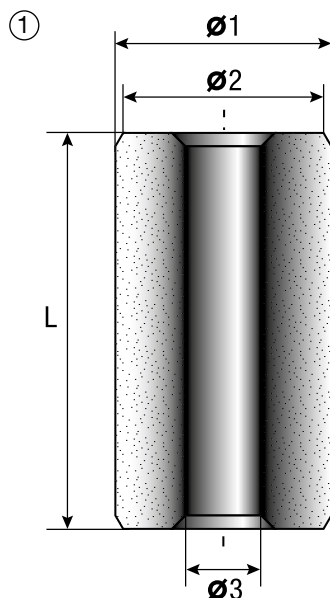
■ Selection table of drying and cleaning cores

CARLY References	Filtering surface cm ²	Volume of desiccation products cm ³	Dehydratable refrigerant capacity kg of refrigerant ⁽¹⁾						
			R22 R450A R134a R1233zd		R407F R452A R407C R513A R1234ze		R404A R507 R455A R410A R448A R449A		R744
			24 °C	52 °C	24 °C	52 °C	24 °C	52 °C	24 °C
CCY 42 HP	374	645	47	40	45	38	42	36	29
CCY 48 HP	420	704	55	48	52	46	49	43	34
CCY 100 HP	630	1495	110	95	105	90	98	85	67
PLATINIUM 48	420	704	72	62	69	59	64	55	44
PLATINIUM 100	630	1495	144	123	137	117	128	110	87
CCY 42 N	374	645	47	40	45	38	42	36	29
CCY 48 N	420	704	55	48	52	46	49	43	34
CCY 100 N	630	1495	110	95	104,7	90,4	98,1	84,7	67

⁽¹⁾ Dehydratable refrigerant capacities according to Standard ARI 710-86.

■ Technical features of drying and cleaning cores

CARLY References	Drawing Nb	Dimensions mm				
		Ø1	Ø2	Ø3	Ø4	L
CCY 42 HP	1	80	74	29	/	148
CCY 48 HP	2	94	82	45	60	139
CCY 100 HP	1	121	108	53	/	164
PLATINIUM 48	2	94	82	45	60	139
PLATINIUM 100	1	121	108	53	/	164
CCY 42 N	1	80	74	29	/	148
CCY 48 N	2	94	82	45	60	139
CCY 100 N	1	121	108	53	/	164





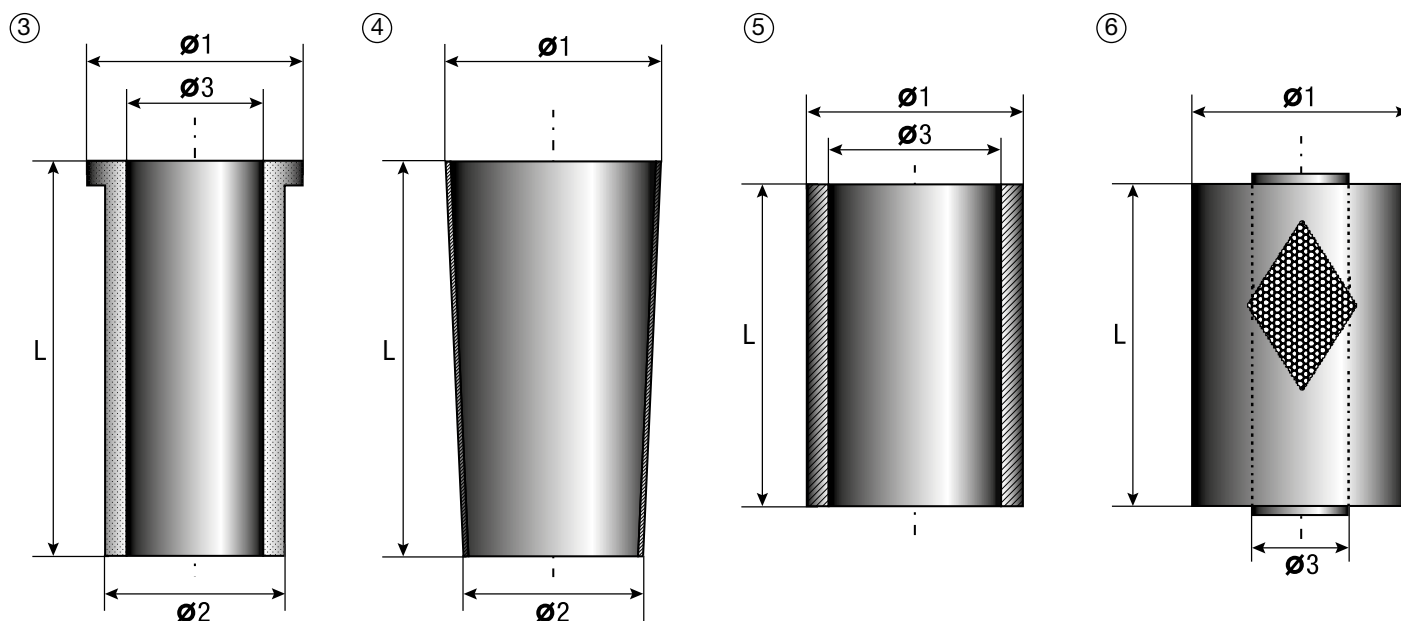
Drying, filtering and cleaning cores

CTCY-EN - 7.1-8 / 05-2022

→ CCY F / CCY I / CCY HU

■ Selection table and technical features of filtering cores

CARLY References	Drawing Nb	Surface de filtration cm ²	Dimensions mm				Maximal working temperature	Minimal working temperature
			Ø1	Ø2	Ø3	L	TS maxi °C	TS maxi °C
CCY 42 F	3	329	81	62	42	155	65	-40
CCY 48 F	5	420	93	/	75	140	65	-40
CCY 100 F	5	630	122	/	105	166	65	-40
CCY 42 I	4	348	81	62	/	155	/	/
CCY 48 I	5	420	93	/	/	140	/	/
CCY 100 I	5	630	122	/	/	166	/	/
CCY 48 HU	6	5790	101	/	27	150	100	-40



■ Spare parts

CARLY References	Description	Types	Quantity
CY 1555211	End plate gasket (red)	BDCY	1
CY 15552360	End torique gasket	BCY-P14	1
CY 15555601	Gasket for end plate and for flange of oil separator (red)	ACY / BCY / BCY-HP	1
CY 15555303	Gasket for flange of oil separators (blue)	BCY-P6	1
CY 15555701	Gasket for end plate and for oil separator (red)	BACY - BBCY	1



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→ CCY / PLATINIUM

■ Weights and packaging

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
CCY 42 HP	0,77	0,68	15
CCY 48 HP	0,90	0,79	15
CCY 100 HP	1,75	1,52	6
PLATINIUM 48	0,90	0,79	15
PLATINIUM 100	1,75	1,52	6
CCY 42 N	0,62	0,53	15
CCY 48 N	0,81	0,70	15
CCY 100 N	1,58	1,36	6

CARLY references	Unit weight kg		Packaging number of pieces
	With packaging	Without packaging	
CCY 42 F	0,13	0,12	6
CCY 48 F	0,26	0,15	15
CCY 100 F	0,24	0,19	6
CCY 42 I	0,11	0,10	6
CCY 48 I	0,21	0,10	15
CCY 100 I	0,24	0,16	6
CCY 48 HU	0,31	0,30	15